

## WHAT IS CLAIMED IS:

- 1) An absorbent article comprising:
  - (1) a backsheet;
  - (2) a liquid pervious topsheet joined to the backsheet;
  - (3) an absorbent core disposed intermediate to the topsheet and the backsheet;
  - and
  - (4) a phase change material disposed on at least a portion of the article.
- 2) The absorbent article of claim 1 wherein the phase change material changes phases in response to a change between the backsheet of the article and the skin of the wearer in relative humidity, moisture or temperature.
- 3) The absorbent article of claim 1 wherein the phase change material will change from a liquid to a solid or from a solid to a liquid in response to a temperature change in the absorbent article.
- 4) The absorbent article of claim 3 wherein the phase change temperature of the phase change material is between about 30° Celsius and about 37° Celsius.
- 5) The absorbent article of claim 3 wherein the phase change temperature of the phase change material is between about 32° Celsius and 35° Celsius.
- 6) The absorbent article of claim 1 wherein the phase change material effects relative humidity or temperature within the article or between the article and the wearer.
- 7) The absorbent article of claim 1 wherein the phase change material is selected from the group of: paraffins or waxes, hydrated salts, or eutectic salts.

- 8) The absorbent article of claim 1 wherein the phase change material has a latent heat energy of at least about 200kJ/kg.
- 9) The absorbent article of claim 1 wherein the phase change material is used at a basis weight of at least about 100 gsm.
- 10) The absorbent article of claim 1 wherein the thermal cell actuator is removable from the article.
- 11) The absorbent article of claim 9 wherein the thermal cell actuator is attachable to the article.
- 12) The absorbent article of claim 9 wherein the article has a pocket into which the thermal cell actuator may be inserted.
- 13) The absorbent article of claim 1 wherein the thermal cell actuator includes one or more packets, and wherein each packet includes enough phase change material to absorb at least about 2 kJ of heat.
- 14) The absorbent article of claim 1 wherein the phase change material effects a decrease in malodorous vapors in the article when the phase change material changes phases.
- 15) The absorbent article of claim 1 wherein the phase change material effects an increase in fragrance in the article article when the phase change material changes phases.